

NASA Health and Air Quality

remote sensing for public health

volume 3, august 2016

upcoming:

Recently Aired ARSET Webinars:
Intro to Satellite Remote Sensing for Air Quality Applications
Fundamentals of Satellite Remote Sensing for Health Monitoring

OneNOAA Science Webinars
Sessions on Climate and Health
Assessment of the U.S. Global Change Research Program
July 26 - August 25, 2016

Meetings:

HAQ Annual Team Meeting
September 20-21, 2016
Asheville, NC

H-AQAST Meeting
November 2-4, 2016
Atlanta, GA

American Public Health Association Annual Meeting
October 29-November 2, 2016
Denver, CO

Our Research in the News

- Dry summers led to increasing salinity in Late Uremia, promoting the growth of red algae bloom, versus the green ones seen three months ago. [Gizmodo](#).



Photo from NASA Earth Observatory

- Algal bloom spotted by NASA's MODIS in Washington State. [The Weather Channel](#).



Group Photo Courtesy of UAH, Rest of the Photos by Shobhana Gupta

The TEMPO Applications Workshop took place at University of Alabama, Huntsville and the Marshall Space Flight Center in July, 2016. The **NASA Tropospheric Emissions: Monitoring of Pollution (TEMPO)** mission is a geostationary observing platform that is expected to measure stratospheric and tropospheric ozone (O₃), nitrogen dioxide (NO₂), aerosols, and other trace pollutants (e.g., formaldehyde (H₂CO), glyoxal (C₂H₂O₂), and sulfur dioxide (SO₂)). TEMPO is slated to launch no later than 2021. This workshop described products, and engaged user communities to enable scientific applications in health and air quality planning and assessment, disaster response, emissions, exposure, and ecological impacts.

HEALTH AND AIR QUALITY APPLICATIONS

APPLIED SCIENCES PROGRAM

JOHN HAYNES

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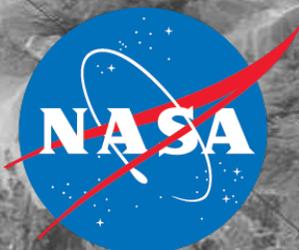
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Created by Shobhana Gupta, MD, PhD; please direct correspondence to shobhana.gupta@nasa.gov

haQ



SPOTLIGHT



GROUP ON EARTH OBSERVATIONS

Countries have borders, Earth Observations don't.

GEO is a voluntary partnership of 102 nations and the European Commission, and 103 Participating Organizations with a mandate in Earth observations. GEO links Earth observation resources world-wide across multiple Societal Benefit Areas, including Public Health Surveillance, and makes those resources available for better informed decision-making.

publications

Improving Nocturnal Fire Detection with the VIIRS Day-Night Band

Polivka TN, Wang J, et al
IEEE Transactions of Geoscience and Remote Sensing

resources

for our community

REMOTE SENSING INFORMATION

GATEWAY

RSIG allows easy access to subsets of multi-terabyte environmental datasets, including satellite, modeled, and *in-situ* sensor data in minutes.

ONE HEALTH HARMFUL ALGAL BLOOM SYSTEM

A voluntary reporting system for state and local public health departments and their designated environmental or animal health partners collecting data on individual human, animal cases of HAB-associated illnesses, and environmental data about HABs.

F INTERAGENCY NETWORK DATABASE

FIND enables users to explore, analyze, and share data derived from publicly available third party sources eg. World Bank, UN, to help inform strategic planning, budget formulation, and policy processes.

WHAT'S NEW IN THE FIELD?

ENHANCED ECONOMIC CONNECTIVITY TO FOSTER HEAT STRESS-RELATED LOSSES

Science Advances
June 10, 2016

Wenz and Levermann analyze the impact of heat-stress on the global economy between the years 1991 and 2011. Increasing connectivity since 2001, they predict, will propagate climate-induced production losses if no adaptation measures are taken.

AGING WILL AMPLIFY THE HEAT-RELATED MORTALITY RISK UNDER A CHANGING CLIMATE: PROJECTION FOR THE ELDERLY IN BEIJING, CHINA

Nature Scientific Reports
June 20, 2016

Tiantian Li et. al. warn of the health burden of climate warming, particularly in the rapidly growing population of aging individuals. They highlight the need for adaptation strategies and policy focus on mediating climate change and protecting the elderly.

THE GLOBAL ECONOMIC BURDEN OF DENGUE: A SYSTEMATIC ANALYSIS

Lancet Infectious Diseases
August, 2016

Shepard et. al. estimate the global economic burden of dengue by country and super-region, and report the total annual global cost of dengue illness to be US \$8.89 billion, with 95% uncertainty interval of 3.7-19.7 billion due to data limitations. They recommend merging cohort and surveillance data sources for improved future estimates to better inform evidence-based health policy.

CONGRATULATIONS TO THE NEWLY SELECTED MEMBERS OF NASA'S HEALTH AND AIR QUALITY APPLIED SCIENCES TEAM!



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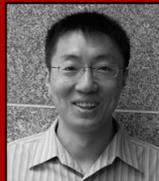
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